

on STN

ACCESSION NUMBER: 1999163820 EMBASE  
TITLE: Photodynamic diagnosis and treatment for atherosclerosis  
by  
an endoscopic approach.  
AUTHOR: Hayashi J.; Saito T.; Aizawa K.  
CORPORATE SOURCE: J. Hayashi, Department Medicine and Gerontology, School of  
Medicine, Kyorin University, Shinkawa 6-20-2, Mitakashi,  
Tokyo 181, Japan  
SOURCE: Diagnostic and Therapeutic Endoscopy, (1999) 5/3  
(191-195).

Refs: 9

ISSN: 1070-3608 CODEN: DTENER

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 006 Internal Medicine  
014 Radiology  
018 Cardiovascular Diseases and Cardiovascular Surgery  
027 Biophysics, Bioengineering and Medical  
Instrumentation  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

AB . . . the carotid artery were recognized as reddish spots from outside  
the artery. In addition, we visualized specifically at the beating  
**heart** surface small coronary atherosclerosis using an  
epifluorescence stereoscope system. We examined the effects of  
photodynamic treatment with NPe6 on the. . .

RN (aspartylchlorin e6) 110230-98-3

AB The photosensitizer, mono-L-aspartyl chlorin e6 (NPe6), specifically  
accumulates in the atheromatous plaque. We detected the fluorescence  
spectra of NPe6 emitted from atheromatous plaques on the descending  
thoracic aorta by an angioscopic approach using the animal model of  
atherosclerosis. We also showed that a fluorescence spectrum peak at 675  
nm, was obtained laparoscopically only in parts of the abdominal aorta  
with an atheromatous plaque. By a fluorescence endoscope, atheromatous  
plaques on the carotid artery were recognized as reddish spots from  
outside the artery. In addition, we visualized specifically at the  
beating

**heart** surface small coronary atherosclerosis using an  
epifluorescence stereoscope system. We examined the effects of  
photodynamic treatment with NPe6 on the atheromatous plaque. The change  
in

the elastic framework in the atheromatous plaque after photodynamic  
treatment was evaluated using scanning electron microscopy. The  
destruction of the architecture of the elastic fiber network in the  
atheromatous plaque was revealed. We also studied the change in the lipid  
components of the atheromatous plaque using Fourier transform infrared  
(FTIR) microspectroscopy. FTIR microspectroscopic analysis showed a  
dissociation of ester bonds of cholesterol esters in the atheromatous  
plaque after photodynamic treatment. The framework of the atheromatous  
plaque and the lipids accumulated in the plaque could be destroyed  
following such treatment.

FILE 'REGISTRY' ENTERED AT 15:23:55 ON 07 SEP 2004

L1 1 S 110230-98-3/RN

FILE 'CAPLUS, EMBASE, BIOSIS, USPATFULL' ENTERED AT 15:24:21 ON 07 SEP 2004

L2 206 S L1

L3 3 S L2 AND ANGIOPLAS?

L4 6 S L2 AND (HEART OR CARDIO?)

L5 34985 S PCTA OR (PERCUTANEOUS TRANSLUMINAL)

L6 2 S L2 AND L5

L7 6 S L4 NOT L6

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:583727 CAPLUS

DOCUMENT NUMBER: 123:78621

TITLE: **Percutaneous transluminal**  
photodynamic therapy of atheroma using  
mono-L-aspartylchlorin e6

AUTHOR(S): Hayashi, Junichi; Sato, Hideaki; Saito, Takashi;  
Kuroiwa, Yukari; Aizawa, Katsuo; Fujiwara, Tatsushi;  
Hosoda, Yasuhiro

CORPORATE SOURCE: School Medicine, Kyorin University, Mitakashi, 181,  
Japan

SOURCE: Proceedings of SPIE-The International Society for  
Optical Engineering (1995), 2371, 554-7  
CODEN: PSISDG; ISSN: 0277-786X

DOCUMENT TYPE: Journal

LANGUAGE: English

TI **Percutaneous transluminal** photodynamic therapy of  
atheroma using mono-L-aspartylchlorin e6

IT Laser radiation  
Photosensitizers

(**percutaneous transluminal** photodynamic therapy of  
atheroma using mono-L-aspartylchlorin e6 and laser radiation)

IT Antiarteriosclerotics

(antiatherosclerotics, photosensitizing; **percutaneous**  
**transluminal** photodynamic therapy of atheroma using  
mono-L-aspartylchlorin e6 and laser radiation)

IT Phototherapy

(chemo-, **percutaneous transluminal** photodynamic  
therapy of atheroma using mono-L-aspartylchlorin e6 and laser  
radiation)

IT Photodynamic action

(therapeutic, **percutaneous transluminal**  
photodynamic therapy of atheroma using mono-L-aspartylchlorin e6 and  
laser radiation)

IT **110230-98-3**, Mono-L-aspartylchlorin e6

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study);

USES

(Uses)

(**percutaneous transluminal** photodynamic therapy of  
atheroma using mono-L-aspartylchlorin e6 and laser radiation)

AB Structural changes after photodynamic therapy of atherosclerotic lesions  
of the thoracic aorta were analyzed by SEM. Cholesterol fed  
atherosclerotic rabbits were injected i.v. with 5 mg/kg of NPe6. At 6 h  
after NPe6 loading, a diode laser irradiated angioscopically on the  
surface of atheroma with the total energy of 200 mJ/cm<sup>2</sup>. SEM showed  
degeneration of atherosclerotic plaques of the thoracic aorta examd. at  
one week after photodynamic therapy. NPe6 could be a potent  
photosensitizer for photodynamic therapy of atheroma.

ACCESSION NUMBER: 2000:725466 CAPLUS  
 DOCUMENT NUMBER: 133:291111  
 TITLE: Inhibitors for vascular recontriction after  
           **angioplasty**  
 INVENTOR(S): Nagae, Tsuneyuki; Aizawa, Katsuo  
 PATENT ASSIGNEE(S): Meiji Seika, Kaisha, Ltd., Japan  
 SOURCE: PCT Int. Appl., 33 pp.  
           CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2000059505	A1	20001012	WO 2000-JP2156	20000403
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1166784	A1	20020102	EP 2000-913083	20000403
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.:

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DOCUMENT NUMBER: 123:78621  
TITLE: **Percutaneous transluminal**  
photodynamic therapy of atheroma using  
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AUTHOR(S): Hayashi, Junichi; Sato, Hideaki; Saito, Takashi;  
Kuroiwa, Yukari; Aizawa, Katsuo; Fujiwara, Tatsushi;  
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